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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/679,353	10/05/2000	Wayne Ernest Conrad	5562-966/PMdC	8049

1059 7590 06/04/2002

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[REDACTED]
EXAMINER

SNIDER, THERESA T

ART UNIT	PAPER NUMBER
1744	10

DATE MAILED: 06/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MF/16

Office Action Summary	Application No.	Applicant(s)	
	09/679,353	CONRAD ET AL.	
	Examiner Theresa T. Snider	Art Unit 1744	
<i>-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --</i>			
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.			
<ul style="list-style-type: none"> - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). 			
Status			
1) <input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>06 May 2002</u> .			
2a) <input type="checkbox"/> This action is FINAL. 2b) <input checked="" type="checkbox"/> This action is non-final.			
3) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.			
Disposition of Claims			
4) <input checked="" type="checkbox"/> Claim(s) <u>31-33,39-43 and 45-48</u> is/are pending in the application.			
4a) Of the above claim(s) _____ is/are withdrawn from consideration.			
5) <input type="checkbox"/> Claim(s) _____ is/are allowed.			
6) <input checked="" type="checkbox"/> Claim(s) <u>31-33,39-43 and 45-48</u> is/are rejected.			
7) <input type="checkbox"/> Claim(s) _____ is/are objected to.			
8) <input type="checkbox"/> Claim(s) _____ are subject to restriction and/or election requirement.			
Application Papers			
9) <input checked="" type="checkbox"/> The specification is objected to by the Examiner.			
10) <input type="checkbox"/> The drawing(s) filed on _____ is/are: a) <input type="checkbox"/> accepted or b) <input type="checkbox"/> objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).			
11) <input type="checkbox"/> The proposed drawing correction filed on _____ is: a) <input type="checkbox"/> approved b) <input type="checkbox"/> disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action.			
12) <input type="checkbox"/> The oath or declaration is objected to by the Examiner.			
Priority under 35 U.S.C. §§ 119 and 120			
13) <input type="checkbox"/> Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) <input type="checkbox"/> All b) <input type="checkbox"/> Some * c) <input type="checkbox"/> None of: 1. <input type="checkbox"/> Certified copies of the priority documents have been received. 2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____. 3. <input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.			
14) <input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application). a) <input type="checkbox"/> The translation of the foreign language provisional application has been received.			
15) <input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.			
Attachment(s)			
1) <input type="checkbox"/> Notice of References Cited (PTO-892)		4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____	
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)		5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)	
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 		6) <input type="checkbox"/> Other: _____	

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: it is unclear as to where in the specification is disclosed first and second dirt collection containers having bottoms which lie in a common plane.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
3. Claims 31-33, 39-43 and 45-48 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It is unclear as to where in the specification is disclosed first and second dirt collection containers having bottoms which lie in a common plane.
4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 31-33, 39-43 and 45-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Exemplary of such:

Claim 31, line 9, 'vacuum cleaner' should be replaced with an element which is claimed to define the cleaner (i.e. cleaning head);

Line 12, it is unclear as to what is being 'to draw into the dirty air inlet';

Line 12, 'vacuum cleaners' appears to be inappropriate.

Claim 40, line 7, 'vacuum cleaner' should be replaced with an element which is claimed to define the cleaner (i.e. cleaning head);

Line 12, it is unclear as to what is being 'to draw into the dirty air inlet';

Line 12, 'vacuum cleaners' appears to be inappropriate.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 31-32 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Dyson('515).

Dyson('515) discloses a cleaning head for cleaning a surface (col. 4, lines 62-65 and col. 6, lines 57-58).

Dyson('515) discloses an upper body portion mounted on the cleaning head, the body having a removable cyclonic cleaning unit with first and second cyclonic cleaning stages (col. 2, lines 51-52 and col. 8, lines 17-19).

Dyson('515) discloses the first cleaning stage having a first collection container and the second cleaning stage having a second collection container, the containers having bottoms that lie in a common plane (fig. 1, A,B).

With respect to claim 32, Dyson ('515) discloses the second cyclonic stage downstream from the first (col. 7, lines 62-col. 8, line 2).

8. Claims 31-32, 39 and 46 are rejected under 35 U.S.C. 102(a,e) as being clearly anticipated by Fumagalli.

Fumagalli discloses a cleaning head (col. 3, line 57).

Fumagalli discloses an upper body mounted on the cleaning head, the body having a removable cyclonic cleaning unit with a first and second cyclonic stage (col. 4, lines 5-6 and col. 5, lines 23-26).

Fumagalli discloses the two stages having dirt collection chambers that have bottoms which lie in a common plane (fig. 3, #39,40,37).

With respect to claim 32, Fumagalli discloses the second cyclonic stage downstream from the first (col. 5, lines 23-25).

With respect to claims 39 and 46, Fumagalli discloses the second stage positioned above the first stage (fig. 2, #1,17).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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3. Claims 33, 39-43 and 45-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyson('515) as applied to claim 31 above, and further in view of Davis.

Dyson('515) discloses a similar device however fails to disclose a plurality of cyclones.

Davis discloses a vacuum cleaner having a cyclonic cleaning unit with two stages wherein the second cleaning stage includes a plurality of cyclones in parallel (fig. 2, #52-59, col. 3, lines 71-75). It would have been obvious to one of ordinary skill in the art to provide a plurality of cyclones in the second stage of Dyson('515) to allow for the most effective separation of small particles.

With respect to claims 39, 42 and 45-47, Davis discloses positioning the second stage above the first stage (fig. 1, #11,12). It would have been obvious to one of ordinary skill in the art to provide the second stage of Dyson('515) above the first stage, as disclosed in Davis to provide for a longer flow path with a greater area for particle separation.

With respect to claim 40, please refer to the above reasoning with respect to claim 33.

With respect to claim 41, Dyson ('515) discloses the second cyclonic stage downstream from the first (col. 7, lines 62-col. 8, line 2).

With respect to claims 48 and 43, Dyson('515) discloses the first stage having one cyclone (fig. 1, #14).

4. Claims 33, 39-43 and 45-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fumagalli as applied to claim 31 above, and further in view of Davis.

Fumagalli discloses a similar device however fails to disclose a plurality of cyclones.

Davis discloses a vacuum cleaner having a cyclonic cleaning unit with two stages wherein the second cleaning stage includes a plurality of cyclones in parallel (fig. 2, #52-59, col. 3, lines 71-75). It would have been obvious to one of ordinary skill in the art to provide a plurality of cyclones in the second stage of Fumagalli to allow for the most effective separation of small particles.

With respect to claims 42, 45 and 47, Fumagalli discloses the second stage positioned above the first stage (fig. 2, #1,17).

With respect to claim 40, please refer to the above reasoning with respect to claim 33.

With respect to claim 41, Fumagalli discloses the second cyclonic stage downstream from the first (col. 5, lines 23-25).

With respect to claims 43 and 48, Fumagalli discloses the first stage having one cyclone (col. 2, line 58).

Response to Arguments

9. Applicant's arguments with respect to claims 31-44 have been considered but are moot in view of the new ground(s) of rejection. The Examiner wishes to apologize for any inconvenience this may cause Applicant.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa T. Snider whose telephone number is (703) 305-0554. The examiner can normally be reached on Monday-Wednesday (6:30AM-3:00PM).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on (703) 308-2920. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 879-9310 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Theresa T. Snider
Examiner
Art Unit 1744

TTT
June 3, 2002